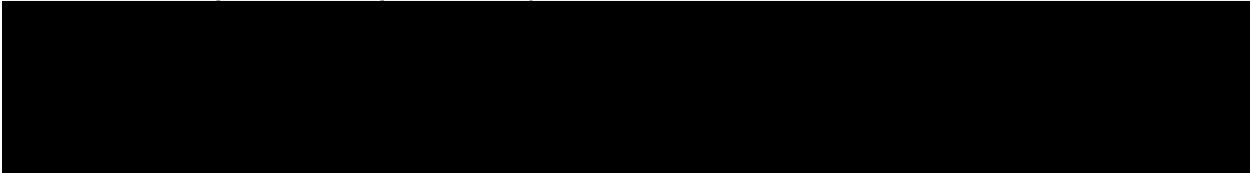


To: Cutler, Thor[Cutler.Thor@epa.gov]
From: Albright, David
Sent: Fri 10/10/2014 9:37:09 PM
Subject: Re: Data for Class II aquifer exemptions

Thanks Thor. That is helpful information. Take care. David

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.



Thank you.

For disposal wells, region 10 prefers/has provided aquifer exemptions that are not blocks of township and range sections. We prefer, these days, that blocks, or areas are more applicable to class II EOR wells. We encourage/approve cylinders (radius of $\frac{1}{4}$ or $\frac{1}{2}$ mile about the bore hole (Lat /Long degrees to 6 decimal places) with a top and bottom of the cylinder (an example is 3450 tvd to 8900 ft tvd... if data goes to that depth of 8900). We start w/a $\frac{1}{4}$ mile. But we will extend to larger radiuses ($\frac{1}{2}$ mile, or mile, if requested, or volume requires the larger radius.

If they asked for a II-EOR aquifer exemption, we would entertain an area as described in the attachment.

What did the state submit?

AK may submit a poor package when they get a poor package. But usually, the state works with the operator until the package is complete. Sometimes state forwards the requests (from the operator) even when the aquifer exemption is ridiculous. It sets up EPA as the bad-guy... where the buck stops. More often than not, when an operator's AE package needs improvement, then the state is the messenger back to the operator, and the operator is required to provide more info to the state.

Recently about 2 weeks ago, I talked with with state AE rep (my counterpart for aquifer

exemptions) at AOGCC and we went over the new memo “Director’s ’s memo) and the data elements that are needed for the HQ AE spread sheet (in the future we anticipate it will be a db). This allows the state to capture the complete data set needed.

How heavily do you rely on the state’s review/analysis of information developed by the oil/gas operator vs. EPA’s own independent analysis?

In R-10 , State(AK) analysis is usually good, detailed and thorough, certainly trustworthy. It is usually good, but may not include ALL that is needed. (because state got an incomplete package in the first place. Also, when the politics are not good for the state (like a tribal role is involved) or the aquifer exemption needs to be rejected.... Sometimes I believe we get the incomplete package... for EPA to reject,... which prevents the state from being the “just say no” bad-guy.

Do you adhere to the 45-day regulatory deadline for approval?

Yup

R-10 has met all “45 day” clocks to date. We take it seriously, to make sure there is no “foot hold” for being “railroaded”. If 45 days is approaching, then, on the record, we would recommend written (email or letter) clarify EPA needs more time and is in the process of completing the aquifer exemption.

I hope that helps

Thor Cutler

206 553 1673

From: Minter, Douglas
Sent: Friday, October 10, 2014 12:54 PM
To: Albright, David
Cc: Dellinger, Philip; Hildebrandt, Kurt; Cutler, Thor
Subject: FW: Data for Class II aquifer exemptions

Hi David: I am copying in three other Regional folks who also have extensive experience with reviewing AE requests, both DI and State. I am also attaching responses to some of your questions from Wendy Cheung who reviews both simple and complex AE requests for Class I, II, and III injection wells in our Region. She has attached an example of an AE request from the Colorado Class II program. I can also provide you with a copy of a recent EPA Class II AE Record of Decision document...just let me know.

In general, those State programs that regularly send us Class II AE requests (i.e., CO, MT, and WY) have been willing to align information in these requests with the data outlined in the newly-released checklist. The checklist has helped ensure that we are asking for the right information, in addition to Guidance 34. In providing us the information from the permit applicant, it is equally important that the State document its own analysis, and complete its own decision making process before formally asking EPA to render a decision. EOR projects are typically the most straightforward. It is rare that these (or disposal well) projects present a current use issue

because of aquifer depth and the presence of hydrocarbons or minerals. Disposal well AE requests can be less straightforward to determine future use, and we typically want to see the State factor in several pieces of data including aquifer quality, sustained yield, and depth in comparing the aquifer proposed for exemption with other potential USDWs in an area.

While we rely on the State's analysis for these more straightforward AE requests, we typically look at the applicant's data and ensure that the State's conclusions are reasonable. That said, our Record of Decision documents EPA's conclusions, not the State's. If we should arrive at a different conclusion (i.e., disapproval), it is often because the applicant's data is not complete or contains a significant degree of uncertainty regarding the potential for current and/or future use.

Douglas

From: Cheung, Wendy
Sent: Friday, October 10, 2014 9:46 AM
To: Minter, Douglas; Bowling, Linda
Subject: RE: Data for Class II aquifer exemptions

Responses to Dave's ?s:

What did the state submit?

This can vary from state to state, some states you get the entire permit application. Some states you get pieces of what is needed for the review and then you need to go back and ask for more. Attached is COGCC's last submission.

How heavily do you rely on the state's review/analysis of information developed by the oil/gas operator vs. EPA's own independent analysis?

I do rely on the State's analysis, which as you point out is based on the operator's application, for the straight forward requests. I do like to have data to support the information submitted, for example, water analysis, cross-sections of the geology showing the confinement, etc. I will do an independent analysis when there are potential red flags, which may include low TDS, thin confinement, nearby drinking water wells, or absence of data.

Do you adhere to the 45-day regulatory deadline for approval?

Unless they cite 146.4(c), there is no regulatory deadline. In some cases, through an MOA, EPA is expected to respond within 45 days, but that is not regs.

My observation is that there's a lot of back and forth between PO and their States and there is difficulty in getting the needed information to move forward on a permit. In those cases, the AE have not been responded to within 45 days. I think the Region 8 checklist (more streamlined version of HQ's document) will go a long way in expediting the process and defining what EPA needs for their review.

From: Albright, David

Sent: Thursday, October 09, 2014 10:54 AM

To: Minter, Douglas; Dellinger, Philip; Platt, Steve; Johnson, KarenD

Subject: Data for Class II aquifer exemptions

We are having a lot of conversations with the State of CA about the type and format of information/analysis/data required to be submitted for a Class II aquifer exemption – mostly for EOR and disposal in 3,000-10,000 ppm TDS formations. HQs checklist is a useful guidepost of what needs to be analyzed, but I'm curious whether you all have any particular guidance or experience to share for actual Class II AEs that you have approved. What did the state submit? How heavily do you rely on the state's review/analysis of information developed by the oil/gas operator vs. EPA's own independent analysis? Do you adhere to the 45-day regulatory deadline for approval? I know you have all dealt with highly complex AE issues, but here I am more interested in the more straightforward, routine Class II exemptions (assuming these exist). Feel free to give me a call if that would be more efficient.

Thanks,
David

David Albright | Drinking Water Protection Section | EPA Region 9 San Francisco | 415 972-3971

